

### REMARKS

Claims 1, 11, 17-19 and 22 have been amended. Claim 3 has been cancelled. Claims 1-2 and 4-24 are pending. Applicants reserve the right to pursue the original claims and other claims in this and in other applications.

Claim 17 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite and as being incomplete for omitting essential structural relationships of elements. Claim 17 has been amended to obviate the rejection. Applicants respectfully request that the rejection of claim 17 be withdrawn.

Claims 1-19 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,014,162 ("Clark"). Reconsideration is respectfully requested.

In a preferred embodiment, the printed circuit board 40 carrying an electronic component 10 is connected to a circuit pattern formed on a base substrate 1. A metal plate 4 is soldered upon a land 2 via a solder layer 5. The land 2 is formed with through-holes 6, the through-holes providing electrical interconnection to a rear side land 7. The solder layer 5 is formed over more than one through-hole in each land 2, as explained in more detail in the specification, pages 20+; Figures 2-4. The claimed invention should not be limited, however, to the preferred embodiments described and shown in the specification and drawings.

Claim 1 recites a printed circuit board having an external interconnection terminal, the external interconnection terminal having a "land formed on a front surface of [a] base substrate and a metal plate soldered upon [the] land via a solder layer, . . . [a] through-hole being filled with a solder such that [the] solder in [the] through-hole extends

in continuation to [the] solder layer . . . wherein said through-hole being provided in plural numbers in each land and said solder layer being formed over said plural numbers of through-holes.”

Clark relates to solder assembly of components, such as the soldering of flexible circuits to printed circuit boards. Figures 1-10 show two components which are bonded together having, *inter alia*, a conductive pad area 15 formed on a second component 14, plated-through holes 13, and pads 12. The Office Action cites to a solder deposit 30 to contend that Clark discloses a “solder layer.” (Office Action, p.3). Applicants respectfully disagree. Clark merely discloses that the solder deposit 30 melts and flows up through the plated-through holes 13 and covers the pads 12. (Clark, col. 5, lines 5+). Clark does not have a through-hole penetrating through a land and a base substrate of a printed circuit board such that the through-hole is filled with solder continuously to the “solder layer.” Furthermore, Clark does not disclose or teach a “solder layer” formed over a plurality of through-holes in each land. Because Clark does not disclose or teach all of the limitations of claim 1, Applicants respectfully submit that claim 1 should be allowable.

Claims 2-19 either depend from claim 1 or contain similar limitations as claim 1. Therefore, claims 2-19 should be allowable for at least the same reasons as claim 1.

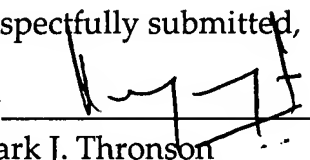
Claims 20-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Clark. Reconsideration is respectfully requested. Claims 20-24 contain similar limitations as claim 1. Therefore, claims 20-24 should be allowable for at least the same reasons as claim 1.

In view of the above, Applicants believe the pending application is in condition for allowance.

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Respectfully submitted,

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